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Acquisition Practices: Good and Bad

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Introduction

The use of commercial off-the-shelf (COTS) products is an increasingly popular approach to the acquisition of major systems throughout the government

Results are mixed
- Some succeed
- Some don't
- Others have a lot to learn

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Our Comparison

Selected two projects

First-hand experience with both

Using the Software Acquisition Capability Maturity Model as a basis for comparison

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The SA-CMM

Level 2:   Software Acquisition Planning
                  Solicitation
                  Requirements Development and Management
                  Project Management
                  Contract Tracking and Oversight
                  Evaluation
                  Transition to Support
Level 3:   Process Definition and Maintenance
                  User Requirements
                  Project Performance Management
                  Contract Performance Management
                  Acquisition Risk Management
                  Training Program Management
Level 4:   Quantitative Process Management
                  Quantitative Acquisition Management
Level 5:   Continuous Process Improvement
                  Acquisition Innovation Management

The Projects

Both:
- U.S. Federal agencies that fund others
- Acquisition, tailoring, and deployment of a financial management package
- Subject to political pressures

Project A:
- Implementation over last four years
- Brought vendor on-board, in production
- Agency operates the system

Project B:
- Implementation over last year
- Engaged system integrator, ready for pilot testing soon
- ASP operates the system

Software Acquisition Planning

A:

- Minimal results of acquisition strategy/planning

- Reliance on GSA contracts

- No dedicated acquisition organization in-house
  - no in-house documented procedures

- No agency-wide vision for overall automation or this part of it

B:

- Planning based on TSPR-like model

- Use of JFMIP list

- No dedicated acquisition organization in-house
  - no in-house documented procedures

- High-level buy-in for concept of overall automation
  - externally operated
  - resistance at lower levels

Solicitation

A:

- Reliance on GSA for much of this expertise
  - GSA ran the solicitation
  - very positive relationship and results

B:

- Performed by in-house program office

Rqts Development and Management

A:

- Agency developed a very detailed set of functional requirements
  - based on another agency's successful solicitation requirements
  - liability in COTS acquisition
- Less attention to non-functional requirements, stakeholder involvement, and requirement traceability

B:

- Agency developed a detailed set of functional requirements
  - developed by a contractor
  - needed further refinement

- Significant attention to non-functional requirements, stakeholder involvement, and requirement traceability

Project Management

A:

- Very weak area
  - no team
  - insufficient resources
  - leader had functional expertise, not software or project management
- Haphazard attention to issues or problems
  - purely reactive
- Overall lack of leadership

B:

- Strong program management
  - strong PM with technical and functional expertise
  - ability to choose team
  - resources available as needed
- Careful planning with ability to react to unforeseen circumstances
- Strong leadership

Contract Tracking & Oversight

A:
- Three confused contracts:
    - product vendor
    - infrastructure integrator
    - domain consultant
- Often follow, not lead the contractors
- Incoherent contract change management
- No one in agency experienced in contract management
- Few plans to track against
- No systematic recording or tracking of problems

B:
- Single contractor
    - experienced integrator with significant experience in the product
- Considerable direction given to contractor
- Close management of contractor
- PM had previous acquisition experience

- Tasks closely tracked

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Evaluation

A:

- No evidence of any evaluation requirements or plan
- Unclear how they decided acceptance

B:

- Evaluation requirements existed
- Contractor was best match to requirements

Transition to Support

A:

- No evidence of a plan for transition or support

B:

- Integrating contractor supports the system for the next 10 years

User Requirements

A:

- Only real involvement of "end users" in requirements determination: the guy in charge has always been a functional
- No organized recording of user requirements

- No organized tracking of user requirements

B:

- Requirements discussed with representatives of end users

- User requirements managed using requirements tracking system

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Project Performance Management

A:

- No process
- No team and no plan
- No reviews
- No risk management

- No project management

B:

- No formal process
- Strong team and plan
- Weekly reviews
- Risk management diffuse, but strong
- Strong project management

Contract Performance Management

A:

- Different members of different parts of the agency have fairly good relations with at least one contractor
- No evidence of contractor process appraisals, evaluation of their performance, or proposals for change

B:

- Good relationship between agency and contractor PMs

- Agency organized structure to match contractor

Acquisition Risk Management

A:

- No risk management

- Not even any backup or contingency plans – a necessity for COTS-based systems

B:

- Many different sources of risk identification

- Strong risk mitigation plans

- Program relied on agency-based risk management (plus PM's hot list)

Version 1.0

Software Acquisition Planning

A:

- No acquisition management training
  - have been content to let GSA provide all expertise

B:

- Experience with previous acquisitions
  - intent to do everything

Practices Not Discussed

Insufficient information to compare the following practice:
- Process Definition & Maintenance

The following practices are not applicable:
- Quantitative Process Management
- Quantitative Acquisition Management
- Continuous Process Improvement
- Acquisition Innovation Management

Overall

Agency A never saw itself as an acquisition organization
- No acquisition organization, process, or plans
- No vision
- No project management
- Grasped at COTS products
    - on rebound from disastrous custom implementation

Agency B also not an acquisition organization, BUT
- Experienced people
- Clear vision
- Strong project management
- Careful use of COTS products
    - filling vacuums in enterprise processes

Reflections

SA-CMM has provided a useful vehicle for comparing two acquisitions.

Observation:
SA-CMM does not consider the future operational state. But the future state was important to the acquisition concept, strategy, and planning for Project B.

For More Information

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